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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 4 1929

REPORT FOR WEEK ENDING MAY 4, 1929.

HAVRE:

Field operations were interrupted during the past week by showers reported on five days, making the total precipitation for the week 1.04 inches. Seeding was possible a part of the time during the week. Small grains on the rotations are completed, and all varieties with the exception of a part of the oats. Miscellaneous seeding is fairly well completed including the grain hays and some of the other forage and cereal tests.

A start was made on seeding a commercial field of barley. Spring rye is coming up nicely as are some of the early seedings of wheat and oats. Winter wheat continues to show a very poor stand with the exception of that seeded late last fall or in stubble where there was delayed germination.

The weather continued cool for very rapid germination and growth of native vegetation. While many of the native trees and shrubs started to show leaf about two weeks ago, none of them are more than one-fourth out at this time. Native grass is showing quite rapid progress and with a few warm days grazing will be very good.

The minimum temperature was below freezing twice during the week.

Maximum temperature 68; minimum 29; precipitation 1.04 inches.

HUNTLEY:

Most of the past week has been too cool for good growing weather and the progress of all crops with the exception of winter rye has been slow. Spring sown grains have emerged to the extent that the drill rows are discernible, but no plots present a full stand. Alfalfa and cultivated grasses have made a little growth but are still shorter than usual. Native prairie cover is not yet green enough to color the hills.

A shower accompanied by hail was received early in the week. The hail did no damage to field crops but injured trees and ornamental shrubbery to a slight extent by knocking off many leaf buds which were just beginning to open.

HUNTLEY, continued:

Field work has consisted of disking and harrowing land for corn and beans and getting it in shape for planting. The Dry-Land pastures were fenced and spring pigs, to be used in the pasturing experiments, were ear marked. Watering devices and weighing pens were repaired in the pasture plots.

Maximum temperature 77; minimum 28; precipitation .23 inch.

SHERIDAN:

Showery conditions prevailed throughout the week. Field work was possible only on Monday, about a quarter of a day on Thursday, Friday, and a portion of Saturday. On farm land near the creek bottoms, and near the mountains only about a day's work was possible during the week.

The varieties of barley, the rates of seeding spring grain, and the first of May date of seeding, were seeded the last of the week. The varieties of spring wheat and oats were seeded the first of the week. The schedule of seeding spring grain was completed to date, as well as the regular seeding of alfalfa and perennial grasses.

Plowing of sod was continued with the tractor while the ground was too wet for other plowing, and as much as is desired to break was completed. Plowing of ground of annual crops also was completed.

The first of April seeding of spring grain emerged during the week. Grass is making a good growth.

Maximum temperature 74; minimum 30; precipitation .74 inch.

MANDAN:

Agronomy

The weather remains very cool for this time of the year. There have been a couple of hard frosts this past week.

MANDAN, continued:

Agronomy, continued.

Wheat and oats are up to a good stand. The thistles are making a good start, but the grain has a much better start on them than last year.

Barley was seeded in the rotations during the week. Flax and alfalfa in the main field rotations, and the forage crop rotations were seeded. About 3½ acres of barley for feed was also seeded.

Rain early in the week delayed field work for one day. While the rain was not heavy, it put the top soil in good condition.

The total precipitation since January 1 is 4.33 inches, or about .75 of an inch above normal.

Maximum temperature 73; minimum 24; precipitation .63 inch.

Cooperative Grazing Experiment

The 71 steers to be used in the grazing experiment were delivered at the pasture on May 1. They were wintered on the river bottoms near Mandan.

Arboriculture

Sixty-five thousand green ash seedlings have been lined out during the past week, to become available for shipment to farmers next spring. Ash seed planted in the spring of 1928 remained dormant last year, and is germinating this spring. This will result in the stand not being available for shipment until 1931 instead of 1930.

The row of willows in the north belt of the main shelterbelt planting has been taken out and replaced with caragana.

The seed crop of Chinese elm and American elm has been badly damaged by frost during the past week.

MANDAN, continued:

Horticulture

The first or dormant spraying of orchards and small fruits is now in progress. Lime sulphur and arsenate of lead are being applied.

Seeds planted last fall are now germinating in the seedbeds. It appears that good stands of most seeds will be obtained.

Some large Chinese elms in the Arboretum were removed by means of dynamite, in order to relieve crowded conditions, and make room for other S. P. I. material. Due probably to the sandy nature of the soil, the dynamite was only partially effective in blowing the stumps out.

About 100 new trees have been potted for fruit breeding purposes. Potted trees in the greenhouse are looking more thrifty than usual this year, and good stands have been obtained from the hand crossing work in most cases.

BELLE FOURCHE:

With the exception of two agreeably warm days, the weather has been cool, cloudy, and threatening. Several light showers were received but the amount of precipitation was not sufficient to be of any significance, except on May 3 when it rained intermittently throughout the day.

None of the spring seeded crops are up, but all of the other crops have made a rapid growth with the exception of winter wheat on the continuously cropped plots. The winter wheat on these plots has not tillered much and is quite backward.

Field work has been devoted chiefly to plowing corn and sorgo plots. Flax was seeded, and potatoes were planted.

Mr. L. A. Hurst, of Soil Fertility Investigations, Bureau of Chemistry and Soils, is visiting the station.

Maximum temperature 78; minimum 31; precipitation .62 inch.

ARDMORE:

The weather was warm and sultry the first two days of the week; cold and stormy the remaining five days. There were three periods of precipitation totaling .46 inch, .43 inch falling on April 30. The total precipitation for April was 1.41 inches, .69 inch below normal.

The growth of hay and grain crops was slow. The late seeded plots of flax and clover were not emerged at the end of the week.

Three hundred Scotch pine and replacement Chinese elm and Russian olive trees were set out in the shelterbelt during the week. The shelterbelts were cultivated to control weeds.

The corn land was again cultivated with the duckfoot cultivator to eradicate volunteer small grain. The wheat plots in the delayed seeding rotation were seeded on the fourth.

Maximum temperature 79; minimum 26; precipitation .46 inch.

CENTRAL GREAT PLAINS FIELD STATION:

Mr. O. R. Mathews, Superintendent of the Ardmore, South Dakota, Field Station came in April 30 and conferred with Prof. Chilcott, leaving for Ardmore the afternoon of May 2.

A car of sheathing was placed at Ware April 29, followed by a car of shingles May 1, and car of coal May 3 so that all available transportation has been in use the past week hauling these materials to the station.

One team of horses with an additional horse were purchased and delivered. The team has been engaged scraping roads and unloading materials from cars. A fourth horse was purchased and delivered on May 2.

Work on excavating the storage cellar was resumed May 3 with five rented teams.

CENTRAL GREAT PLAINS FIELD STATION, continued:

The concrete floor and drinking tub were run in the barn; horse stalls and mangers were placed and sliding doors hung. The underground storage tanks for gasoline and kerosene, with 5-gallon visible pumps were installed and filled May 4. Floor sanding of bunkhouse and two staff houses was finished May 4.

Operation of the station mess hall was begun May 1, with two regular boarders and several of the carpenters and painters taking dinner.

Snow and unfavorable weather prohibited any attempts at plantings.

April 28, Clear, froze during the night.
" 29, Clear and warm; snow going off rapidly.
" 30, Clear, above freezing.
May 1, Snowing and blowing hard; 24 above at 6:30 AM.
" 2, Clear; lowest 35.
" 3, Clear, 34 above at 6 AM. Cloudy in afternoon, threatening rain.
" 4, Snow flurries in forenoon; 32 above at 6 AM. Warming up in afternoon but cloudy; threatening rain.

ARCHER:

The weather has continued cool and humid with squalls of rain and snow. This has delayed field work and vegetative growth. On Wednesday, May 1, field work was accomplished with difficulty. During the night it rained and snowed. On May 3 another attempt was made to do field work but without success. At night it rained and snowed again.

These conditions have made the yards very muddy. Manure has been spread on pasture land for the fields are so wet that hauling of manure on them is impossible. The work of sorting and dipping potatoes is nearly completed. The sewage system for the dairy barn and milk house is in process of reconstruction. Two new horses have been purchased. These will be of considerable aid in the accomplishment of spring work.

Maximum temperature 63; minimum 23; precipitation 0.22 inch.

AKRON:

The week has been cold and cloudy with conditions unfavorable for active field work. The rotation small grain plots for corn and for fallow were disked to kill the first growth of weeds. The two sheep rotation stubble fields for corn were plowed and packed this week-end. Other work consisted of trimming plots, preparing plot stakes, shelling seed corn, and other odd jobs about the station grounds and buildings.

On Tuesday this region experienced a rain which turned to snow by nightfall. Wednesday morning the ground was covered with from two to three inches of wet snow which melted almost completely before nightfall. This snow was impelled by a moderate northwest wind which caused it to drift badly in the east and west roads blocking them for a time.

Forty pigs, weighing approximately 70 pounds, were received at the station this week-end for the summer grazing experiment. Mr. Osland, from the State College, is here this week-end aiding with the work of starting the experiment.

Russian apricots are in full bloom by this week-end. Certain of the plum varieties are practically in full bloom. Apple blossoms are so far opened as to show pink.

Generally speaking, vegetative growth is very backward as yet.

The third date of seeding of the spring grains on corn land was made this morning.

Maximum temperature 74; minimum 29; precipitation .33 inch.

NORTH PLATTE:

According to the report of the North Platte Weather Bureau, April opened with a rainfall deficit for the year of .83 inch and closed with an excess of .94 inch. April rainfall was 3.83 inches at the Weather Bureau, and 4.33 inches at the station table gauge.

NORTH PLATTE, continued:

The past week has been cool with a few light intermittent showers. A minimum temperature of 27 degrees was recorded on May 1. Plums, cherries and apples were in full bloom but no great damage is as yet apparent.

Spring grains and alfalfa are growing rapidly. Winter wheat is making a slow recovery from the earlier soil blowing damage, and covers the ground but little better at the present time than do the spring grains.

Mr. O. R. Mathews visited the station on April 29.

COLBY:

Cool, cloudy weather has been the order during the past week. No large amounts of precipitation were recorded, but it rained often enough to prevent the accomplishment of much field work.

The temperature dropped to 30 the night of May 1, but apparently was not low enough to injure the fruit.

The only field work accomplished was the plowing of some small fields and spring tooth harrowing around the orchard and farmstead.

HAYS:

During the week there has been some cloudy and threatening weather but no rain. However, there is sufficient moisture in the ground for present requirements, in fact some dry weather for wheat is desirable. This is especially true on well prepared ground and on fallow where the growth has a tendency to become too rank this early in the season. On some of the fallow plots the growth is now from six to twelve inches high. However, on late prepared ground the growth is very much lighter and extremely light on stubbled-in ground. The difference between growth on timely and well tilled ground and that on late tilled ground is extremely noticeable.

HAYS, continued:

The growth of wheat on barnyard manured (heavy applications) plots is much heavier than that on the checks. In the commercial fertilizer experiments there is no apparent difference in growth due to fertilizers. Checks and treated plots all look alike.

Barley, oats and spring wheat look good on all plots except those spring plowed or listed. On these the stand is thin and either spotted or streaked.

Rye, about 15 inches high, is looking fair, and has somewhat the appearance of commencing to wilt from drought, which may be due to the heavy frost May 1.

Peas, Canada field, are about five inches high and doing well.

Alfalfa on the upland plots is about 4 to 6 inches high. On the bottom land plots it is 6 to 10 inches high. The stand on the bottom land plots has been dying out rapidly during the past two years, there being left only about 50 per cent of the original stand.

Brome-grass on the sod plots has made quite a good spreading growth which would have furnished some pasture but is not producing any upright growth, and growth seems to have slowed up within the last two weeks. The newly seeded plot is up to a good stand and looks very promising at this date.

Considerable tillage work has been done during the week, for most part on ground for spring row crops, on fallow, in alleys and roadways, the purpose being to kill the first good crop of weeds. The soil is in very fine condition for work.

GARDEN CITY:

The fore part of the week was clear with seasonable temperature. On Wednesday, May 1, .57 inch of rainfall fell and .17 inch on May 2. Ground is in good condition for seed bed preparation.

GARDEN CITY, continued:

Most of the work this week has been on trimming wheat plots, and spring toothing fallow plots to destroy weeds. Today we are grading roadways. In one or two places on the project water has started to cut into plots, and in one case has run across a plot. We are grading the centers out, leaving the center of the roadway lower than the sides.

Winter wheat plots are making a good growth, in fact it may be too heavy if we have a shortage of moisture later on.

Maximum temperature 83; minimum 30; precipitation .75 inch.

TUCUMCARI:

Precipitation of .12 inch May 1 made a total of .60 inch received since March 27, and conditions will not be favorable for preparation of land and planting until rain sufficient to meet the moisture about four inches from the surface is received. During the past week manure has been hauled, fields staked, orchard sprayed, and disking and plowing of the forage sorghum block is under way.

A temperature of 29 degrees, the morning of May 2 killed practically all new growth on grapes, including fruit buds on the more advanced varieties. Cherries and apples apparently were not injured, although many leaves on the latter were frosted to a crisp.

The first date of cotton was planted, listing being necessary to plant in moist soil. The last date of sweet clover was seeded May 4. A partial stand of clover seedlings is now apparent on those plots seeded prior to March.

Maximum temperature 83; minimum 29; precipitation .12 inch. Wind velocity 5.6 miles per hour; evaporation 2.058 inches.

DALHART:

A very favorable week for crop growth has just passed. There were no high winds to do appreciable damage. A total of .22 inch of rain, with traces of snow, fell on April 30. The temperature fell to 29 degrees with frost. The very tender vegetation showed some frost injury but in general no damage was done from the frost.

Winter wheat in the surrounding country appears to very good advantage. In fact, except on the real sandy land, the wheat has a very rank growth and a rich green color. The few plots of wheat on the station are not as good in appearance as those on surrounding farms.

Spring work for the sorghums and corn has scarcely gotten under way in this community. A few are getting anxious, and corn planting will probably start during the coming week. An immense acreage of sod is being broken out here this spring. Tractors in some instances are running night and day for sod-breaking.

Work during the week has consisted of plowing for sorghums and general spring clean up around the trees and shrubs.

BIG SPRING:

Winds of higher velocity have occurred during the past week than at any time since the first of the year. The worst blow of the season occurred on May 1; at this time the wind started to blow early in the morning and continued a regular gale all day. Although little damage was done on the station, considerable soil movement took place in spite of sand furrowing. Reports from the sandy sections of the county are generally agreed that practically everything that was planted was either covered up or blown out. Replanting will be necessary as soon as it rains.

The month of April closed with a rainfall record of .13 inch, as compared with a 25-year average of 2.19 inches.

BIG SPRING, continued:

Station work during the week has consisted of disking the cooperative field and hauling dirt for the station roads. The May 1 date of seeding was made, but it is doubtful whether it will emerge or not without rain.

Maximum temperature 90; minimum 36; precipitation 0.

LAWTON:

Drought throughout a large portion of Comanche County and counties adjoining on the south and west is becoming acute. A few farmers are already plowing under some pretty good sized fields of wheat. Others will wait another week, being of the opinion that a good rain in the meantime will make some of the crop worth leaving. However, if the prevailing absence of moisture continues a week or 10 days longer the abandoned acreage of wheat will be very large.

High winds have blown more or less regularly the past week and vegetation of all kinds shows an intense need of moisture.

Planting of row crops on the rotation plots will likely be delayed until sufficient moisture falls to insure germination. The May 1 planting of cooperative projects was made as scheduled.

In the northern part of the county where moisture conditions have been favorable all spring there are indications of the wheat disease, "Take All". Plants are being forwarded to Washington for identification under the present date.

Maximum temperature 91; minimum 40; precipitation Trace.

WOODWARD:

Work of the week has consisted of cleaning up weeds in the orchard and vineyard and on roadways, and in pruning peach orchard and planting Chinese elm seed.

WOODWARD, continued:

The frequent showers are keeping up with the growth of the wheat, so prospects for that crop are still good.

Peaches did not set as heavily as it was expected they would. Apricot trees are loaded with fruit and cherries carry enough.

Maximum temperature 87; minimum 35; precipitation .65 inch. Wind velocity 8.3 miles per hour; evaporation 1.735 inches.

JUDITH BASIN:

The precipitation for April was only .10 inch higher than the minimum for this month recorded at this station in 1919. The evaporation was correspondingly low so that soil moisture conditions continue favorable. The average maximum, minimum and mean temperatures for April were about two degrees lower than normal.

With freezing temperatures occurring practically every night during the week, crop growth has been retarded. New grass is still too short and scarce for grazing. Feed supplies are meeting the demand in the Basin.

Winter wheat is slow in making growth but stands are good and the crop at this date is in a healthy condition. The low acreage of winter wheat planted in the Basin last fall will be made up by increases in spring wheat plantings.

Sweet clover grass, potatoes and peas were planted on the rotations. Sweet clover, grasses and annual crops were seeded on the Forage Project. The garden was cultivated and an early planting completed. The orchard was cultivated. Weeds that had blown into the shelterbelt were gathered and burned.

Maximum temperature 63; minimum 23; precipitation .13 inch.

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MAY 11 1929

REPORT FOR THE WEEK ENDING MAY 11, 1929.

PENDLETON:

The weather for the past week has been favorable for the growth of cereals. Frost about two weeks ago quite severely injured some of the barley varieties. Trebi and Peruvian were the most severely injured. None of the spring wheat or oat varieties were injured.

The work on the station the past week has consisted mainly of hoeing tar weed and Jim Hill mustard. These weeds are quite abundant wherever there is a slight skip in drilling.

A large bean company has leased about 11,000 acres of land for beans in this section. The variety they are planting is the Robust. Beans are a new crop in this region and this rather extensive experiment is being closely watched by many farmers. The company pays $2.50 an acre for plowing, 50 cents an acre for harrowing, 50 cents for packing and $3.00 an acre rental. They release the land to the farmer not later than September 25, thus giving him time to do his seeding in the early fall. The bean company expects to cultivate the crop from five to eight times during the season.

Mr. M. R. Lewis, Drainage and Irrigation Specialist of the Oregon Experiment Station, was a visitor May 11.

Maximum temperature 80; minimum 31.

HAVRE:

The first half of this week was cold with a continued east wind and the nights below freezing. A rain beginning the morning of the 9th totalled .64 inch of rain and since that time temperatures have risen. Field work continued for the first part of the week and is starting again this morning, May 11.

Spring seeded grains aside from rye have started very slowly, but during the last two or three days a great deal of it has emerged. Spring rye, during this period of cool weather, has made a very good growth, and that seeded ten days ago is up in nice shape now.

HAVRE, continued:

While native grass has made very slow growth, it has made a very good start and with the present moisture conditions should make rapid improvement. Domestic grasses have grown very well and are tall enough for good pasture.

During the last few days some winter injury to alfalfa has become apparent. Many of the varieties, while not showing a large percentage of killing, show a weakened condition. Ladak, as compared with other varieties, is showing a more vigorous stand with practically no weakened condition.

Maximum temperature 64; minimum 24, with four nights below 32; Precipitation .64 inch.

JUDITH BASIN:

A light snow toward the end of the week delayed field work for a day. The moisture received, although light, was beneficial in maintaining favorable soil conditions. Cool, cloudy weather continued and all crop development was retarded.

A survey of winter wheat indicates the prevalence of foot rot in fields planted prior to September 1, 1928. Some reseeding has been done in the northern part of the Basin. A large field south of Benchland which was seeded the first week in August is badly infected with the disease. It appears that the loss on this field will be as serious as those attacked last year. The winter wheat acreage, although smaller than in 1928, appears to be in much better condition than last year. In most sections recommendations were followed with favorable results being obvious at this date.

The date of seeding experiments and tillage tests at the station are a good check on field conditions in this section. Plots seeded in July are practically a total loss with a gradual improvement up to September 1, when normal healthy conditions are evident. Stubbled-in fields or fields planted on poor methods are also in poor condition.

JUDITH BASIN, continued:

About fifty per cent of the spring wheat crop in the Basin is seeded, with rapid progress being made at the present time in all sections. More feed crops are being seeded this year. The demand for seed supplies of this type has never been greater in this region.

Various tillage methods were seeded at the station. Also foundation seed stocks of small grains. Alfalfa and sweet clover were seeded on the forage project. Weeds and broken branches in the shelter-belt were gathered and burned.

Visitors included Mr. Lee Popham, of the office of Cereal Crops and Diseases, located at Bozeman, and several winter wheat growers.

Maximum temperature 57; minimum 17; precipitation .04 inch.

HUNTLEY:

Cool weather coninued throughout the past week and crop growth has been slow. Minimum temperatures of 17 and 18 above zero froze back seedling barley and did some damage to alfalfa and garden crops. It is yet too early to determine what injury may have been done to fruit buds and ornamental shrubbery.

Hogs were weighed up and placed on the winter rye plot of the annual crop pasture rotation. The forage at present is about 7 inches tall and is in excellent condition for grazing. Alfalfa and brome-grass pastures are not yet far enough along to be stocked.

Corn was planted in the rotations and variety test during the week. The seed beds for this crop have dried out to such an extent that it is doubtful if full stands will emerge until we have rain. Precipitation for April was but 60 per cent of normal and that for May is unusually light so far.

Maximum temperature 63; minimum 17; precipitation .04 inch.

SHERIDAN:

Snow the most of the day on the 7th delayed field work again. About 5 inches of snow fell, making .44 inch of precipitation. About 3 inches were still on the ground the next morning, but about all of it disappeared that day.

Sweet clover and some miscellaneous pieces of ground to be seeded down to brome-grass were seeded the 6th. It was possible to drill on some of the land intended for annual pasture crops by the afternoon of the 9th. Field peas, barley, and rye were seeded on this land. Dates of seeding wheat, oats, and barley were seeded yesterday, the 10th.

An attempt was made today to duckfoot some stubble land and some of the fall plowing in the rotations for corn, but the ground was too wet beneath the surface. Fencing has been in progress while the land has been too wet to work. Native sod was found wet to the full depth to which post holes were dug, $3\frac{1}{2}$ to 4 feet.

Maximum temperature 57; minimum 19; precipitation .53 inch.

DICKINSON:

Dry, cold weather has continued to date in May with the minimum temperature below freezing each night up to the 8th. On the four nights from the 4th to the 7th the minimum temperatures were 16, 14, 14, 16. The surface of the soil was dry and the damage done much less than would seem probable with such low temperatures. Some wheat in low places was damaged, but none on the station or in the locality will have to be reseeded. Fruit and ornamentals seemed to have escaped, due to the fact that cold weather all spring has delayed development of the flowers. Two light showers near the end of the week freshened up the vegetation but a good rain is needed.

Potatoes, flax and millet were seeded on the rotations on May 6.

All trees were cultivated. Crested wheat grass grown in rows for seed production was also cultivated. A number of selections of this grass were planted in the nursery.

DICKINSON, continued:

Due to the cold weather, plowing for corn was delayed for a few days but will be started the first of the week.

Maximum temperature 59; minimum 14; precipitation .34 inch.

MANDAN:

Agronomy

The past week has been unseasonably cool. Freezing temperatures occurred on six consecutive nights from the 3rd to the 8th, inclusive. The minimum temperature ranged from 20 to 27 degrees. Small grain was all frozen back, but as far as can be determined at present the grain will come back.

The entire week has been spent in plowing for corn and sorghum. The plowing of the rotations will be finished today.

A nice rain fell on the night of the 9th which put the surface soil in good condition.

Maximum temperature 60; minimum 2C; precipitation .60 inch.

Cooperative Grazing Experiment

Native grass is making rather slow growth because of the cool weather. It will no doubt be in only fair condition for grazing here May 15.

Horticulture

Fruit trees and small fruits have been sprayed with arsenate of lead and lime sulphur.

Top-working in the Hibernal and Virginia crab blocks is now in progress. Blight has done considerable damage to top-worked trees.

The second planting of vegetables in the acre and coulee gardens was completed during the week. The early stuff planted in April is now up with a very good stand. The late frosts damaged the radishes, but the rest show no effects. Cabbage, lettuce and kohlrobi plants were set out the latter part of the week, following a good rain.

MANDAN, continued:

Horticulture, continued.

If no immediate frost occurs a good stand is anticipated as the moisture conditions are excellent.

The grounds have been raked, and the cultivating of shrubbery and tree groups is in progress. Growth of grass and shrubs has been much retarded by the cold weather. There does not seem to be much winter injury visible except the hardiest rugosa hybrids which are killed to the ground. It is hoped the lilac blossoms buds were too little advanced and thus escaped injury. At present it is difficult to tell.

Arboriculture

Twenty-five thousand conifer seedlings have been transplanted to nursery rows from the seed beds. A rain of .60 inch falling the day after planting operations were completed, should assure a reasonable stand this year.

Forty pounds of Chinese elm seed obtained from Woodward Field Station has been planted in the station nursery.

All hedges on the station have been cleaned and cultivated. Cultivation of the Shelterbelt nursery with the team and power cultivator has been started.

BELLE FOURCHE:

The past week has been unusually cold, and killing frosts occurred on four successive nights, the minimum temperatures varying from 23 to 28. A heavy wet snow which totaled .61 inch precipitation was received May 8, but the snow flakes melted almost as soon as they fell, and the maximum depth of snow on the ground did not exceed 2 inches. A small amount of run-off occurred when the remaining snow melted the following morning, but most of the moisture was absorbed by the soil.

BELLE FOURCHE, continued:

Soil samples taken May 10 show the first foot of soil to be practically saturated on all plots. Moisture has penetrated to a depth of 2 feet on coninuously cropped wheat plots, and the soil of plots fallowed in 1928 is well filled with moisture to a depth of 4 feet or more.

The weather has been too cold for much plant growth to take place and crops have made very little advancement. Barley is up, and oats and spring wheat are fully up on all except the spring plowed plots. Flax has germinated and a couple of warm days will bring it up.

Field work has been devoted to disking and duckfooting corn and sorgo plots, and to harrowing and staking corn plots for seeding.

Maximum temperature 61; minimum 23; precipitation .64 inch.

ARMORE:

The weather during the week was cool and damp. There were three periods of precipitation of sufficient amount to halt field work on two and one-half days.

Alfalfa and sweet clover that was seeded on April 27 emerged on May 9. Flax seeded on sod and disked corn ground emerged on the 10th.

Corn planting was started on the 8th. About forty acres were planted during the week. The plots in the main rotations were planted on the 11th.

In the isolation pastures the areas to be closed to grazing were fenced in and the new grazing areas opened. The fences in the reserve pasture were repaired.

Maximum temperature 63; minimum 33; precipitation .32 inch.

CENTRAL GREAT PLAINS FIELD STATION:

Telephone connection with the outside world was restored May 7. Snowbanks in rear of messhouse were still visible May 11.

A carload of creosoted fence posts arrived at Ware May 8 and unloading was completed the following day. The wagon scales were received May 10 and will be set up next week. The waterline was connected up with the barn May 10, stalls and mangers, feed boxes, etc. were finished and the two teams of horses moved from the implement shed to the barn. Carpenters will finish hanging the hay track and sling the first of the week. The bunkhouse will be ready for occupancy the first of next week. Tinsmiths have finished gutters and downspouts on the two staffhouses, superintendent's house and clerk's cottage.

When weather permitted, breaking and disking Section 9, south half, near the old buildings, was carried on. Approximately 20 acres have been prepared for sowing oats and about 5 acres are ready for vegetable garden, tree seed and the lining out of seedlings. Planting of root crops in the vegetable garden was under way the afternoon of the 11th.

The wet weather made it necessary to suspend operations in the storage cellar. If the weather remains clear, the work of excavating can be resumed the first of next week.

Professor E. C. Chilcott and Mr. R. Wilson made a business trip to Denver on the 8th, returning to the station the same day.

May 5	Cloudy and intermittent showers.	30	above	at 9	p.m.
" 6	Clear; ice on wet spots.	38	"	"	"
" 7	Cloudy and cold; east wind; foggy.	34	"	"	"
" 8	Cloudy and cold, threatening rain.	36	"	"	"
" 9	Cloudy and cold.	36	"	"	"
" 10	Cloudy; raining in afternoon.	38	"	"	"
" 11	Clear; warming up.				

ARCHER:

The weather has continued cool and humid with considerable cloudiness. During five days of the week precipitation was recorded which varied from a trace to .31 of an inch.

ARCHER, continued:

The .31 of an inch occurred during the afternoon of May 10.

The humid condition did not permit the water-soaked soil to dry very rapidly. Seeding on prepared soil was accomplished but it was possible to use the lister only one day during the week. Wheat, oats, barley and peas were seeded on the Dry-Land plots and the seeding of corn was started. A number of trees and shrubs have been planted and the hauling of manure continue. The manure is being spread on the dairy pasture.

Beginning May 8 the dairy herd was turned into the pasture during the day, hay being fed in the evening. The pasture growth is very slow but the abundance of moisture should give the grass a good start.

Winter wheat has not made a very good showing. It appears that a half crop is the most that can be expected. The long dry spell last fall, the continued cold dry weather during the winter and the cold spring seem to have been unfavorable factors.

Director W. L. Quayle was a station visitor May 9.

Maximum temperature 64; minimum 26; precipitation .56 inch.

AKRON.

The entire week has been cool and cloudy with frequent light showers. Precipitation has been recorded each and every day from May 4 to May 11. These showers, together with the cool, cloudy weather, prevented any extensive field work. The trimming of the roadways along the seeded experimental plots is practically completed, and today it was possible to duckfoot cultivate a part of the roadways.

The pigs received last week-end were allotted early this week into two equal lots of twenty pigs each, one lot to be self fed in dry lot the other to be self fed while having access to annual pastures.

AKRON, continued:

Dr. D. W. Robertson, in Charge of Plant Breeding for the State College, came down the middle of the week and a field trip was made southeast from Akron, east and north from Otis where windswept fields of winter wheat were examined. The writer having seen these fields some three weeks earlier was surprised not to find these fields greatly improved. It would seem that the past three weeks of cool, cloudy weather would have proven ideal for the recovery of this damaged wheat, but, if so, it must have been much more severely damaged than at first appeared. This wheat still looks like it could make a fair crop if only weeds can be controlled. Weeds are the problem on many windswept fallow seeded fields in this region this year. The delayed recovery may also cause it to be more subject to rust damage later in the season.

The orchard is blooming fitfully, a few days of warm, sunshiny weather being needed to bring the trees into full bloom.

The first mocking bird of the season was heard this week.

Maximum temperature 65; minimum 32; precipitation 1.01 inches.

NORTH PLATTE:

Weather has continued cool and cloudy. There has been less than ten hours of sunshine during the past six days. Field work has been frequently interrupted by showers or by the soil being too wet to till. A start has been made at corn planting on the general fields. Rotation plots have not been planted on account of low soil temperatures.

Dr. S. W. Alford, of the Animal Pathology Department of the Nebraska Experiment Station, is here at present testing the station cattle for tuburculosis.

COLBY:

With a measurable amount of precipitation on all except one day since May 1 it has been impossible to accomplish field work. A total of .69 of an inch of precipitation was recorded during the past week.

COLBY, continued:

A small amount of hail fell last night, but little damage was done.

The small grains are making satisfactory progress, but have not made much growth during the cool weather that we have been having.

Today, May 10, is the first day during the week that teams could be worked in the field. The orchard and plantings are being spring tooth harrowed and some disking and manure hauling on the dry land project is being done.

Director L. E. Call and Mr. B. H. Johnson, Chief Inspector of the Kansas Grain Inspection and Weighing Department, were station visitors yesterday.

Maximum temperature 70; minimum 38; precipitation .69 inch.

GARDEN CITY:

Field work has made good progress the past week. Soil was in good shape to work. Plots which are to be summer fallowed by early spring listing were listed Thursday, May 9.

All plots which were fall and spring plowed were spring toothed on Friday until rain stopped operations. At three p. m. Friday a hard hail storm came up followed by rain, although not enough wind accompanied it to cause damage to wheat plots.

The total rainfall in the last 24 hours was 2.23 inches. Ground seems to be well soaked in spite of the fact that much of the rain fell fast and runoff was rather heavy.

On Monday, the 6th, we finished grading roadways in the project. The value of good roadways was well illustrated yesterday when the heavy rain fell, although in one or two cases the volume of water was too great and some of it ran across plots.

As soon as the ground gets dry enough we will make the first planting of date of sorghums.

Professor E. C. Chilcott visited the station on Friday, May 10.

Maximum temperature 83; minimum 38; precipitation 2.32 inches.

HAYS:

The week just past has been a wet one, it having rained more or less five out of seven days, with a total rainfall for the week of 3.47 inches. The rains occurring first were small and gentle so the water went into the ground, but during the night of the 10th 2.38 inches fell in showers, some of which were very heavy, causing washing and packing of the soil, and leaving the surface in rather bad condition. The rain was very much heavier ten miles south and about the same distance east. The localities reported seven inches of rainfall which caused considerable damage.

All the crops are making satisfactory growth, in fact, the wheat on well prepared ground is still making too much growth, or at least more than is desirable. Very late prepared land is not producing so much growth and the wheat looks yellow.

The spotted and streaked stands of spring grains on late plowed plots now show a very good stand, but the growth is uneven on account of part of seed not having germinated until after rains. On the fall prepared ground, and on row crop stubble land, these grains look very good.

Rye is three feet high, about 75 per cent headed, and about ready to turn under for green manure. Ground is too wet at present for plowing.

Among the visitors of the week were Dean Call, Dr. Sewell and Dr. Gainey, of the Kansas State Agricultural College, and Mr. E. H. Coles, Superintendent of the Colby Station.

TUCUMCARI:

Continued drought and periods of high winds are rapidly lowering the unusually favorable spring indications of a month ago. Farmers are planting corn and cotton, while in a few instances the grain sorghums are also being planted, all with listers. While the seed is placed in moist soil, wind movement and rapid drying are likely to necessitate a great amount of replanting. Early cotton date plots on the station were lister planted, but stands are very doubtful. Wheat on the plains is rapidly depreciating. Prospects have no doubt been cut in two the past week.

TUCUMCARI, continued:

During the week early variety plots of corn were lister planted, partly to avoid blank listing the series to hold soil. Stands on the plots are questionable. Spring plowed rotation and M. C. plots were plowed, manure was hauled, and evergreens were sprayed.

Mr. J. R. Horton, Entomologist stationed at Wichita, Kansas, spent two days on the station examining the southwestern stalk borer survival on six plots of corn stubble, given different winter treatment. While early listing results in heavy mortality, the method is far from 100 per cent efficient.

Maximum temperature 91; minimum 42; precipitation .0.
Wind velocity 9.0 miles per hour; Evaporation 2.014 inches.
Precipitation since March 28, 0.60 inch.

DALHART:

Weather conditions have been rather unfavorable for plant growth during the week just ending. Not more than a trace of rain has fallen. The maximum temperature for the week was 91 degrees on Friday, the 10th. This maximum temperature was accompanied with a high wind from the southwest which reached a rather high velocity for about one-half hour between 4:45 and 5:15 p.m. Considerable sand was in the air during that time. After the wind subsided, many small cherries were noticed under the early cherry trees. The minimum temperature was 39 for the night of the 6th. The wind velocity for the 24 hours ending this morning was 17.0 miles per hour, which was the highest for the week. The lowest 24 hour wind velocity average was 8.4 miles per hour on the 6th. The evaporation for the week was 1.537 inches.

The second date of planting cotton was seeded on the 10th. The first date has not emerged yet.

Winter wheat continues to look quite promising. Oats and barley are looking fine though not much growth has been put out yet. Rye is just about fully headed except where it has blown badly or grazed closely by the rabbits.

DALHART, continued:

Field work has consisted of plowing rotation plots that go into milo, cowpeas and corn. The ground is turning over excellent.

The High School class from Dumas visited the station Friday.

Some time was spent in getting stocks of seed ready for the first date of planting which starts, or will if weather permits, for the sorghums on the 15th.

BIG SPRING:

Soil moisture conditions have improved considerably during the past week as a result of a .65 inch rain. The station caught the northern edge of a rain which was very local in character; in town, a mile south of here, about 2 inches fell, while north of the station the dust was barely laid. This rain was accompanied by a hail storm which knocked off considerable fruit, especially plums.

Fallow plots and the A plots of the C. C. series were plowed since the rain. Other work consisted of harrowing and disking plots in the rotations, and hauling dirt for the station roads.

Maximum temperature 99; minimum 44; precipitation .75 inch.

LAWTON:

A rain storm of 7.39 inches on May 11 was the first precipitation to be recorded since March 27. This storm, accompanied by high wind, and some hail, was preceded by a week of cool, cloudy, windy, misty weather. About 0.9 of an inch of rain fell shortly in the afternoon but the major portion of the rain fell in driving sheets between 6 p.m. and 8 p.m. This is the largest rainfall ever recorded at the station within a 24-hour period or less.

Fields were badly flooded and erosion was very heavy. All fields and plots were well cultivated and prepared for planting of row crops, but a rather excessive amount of work will be required to put the land in planting condition again.

LAWTON, continued:

Small grains will profit largely from this rain. However, a pretty careful survey of the crops within the county during the past week indicates that production of oats and wheat will be almost negligible on many fields, especially in the southwestern part of the county. The southeast and the northeast portions of the county enjoy considerable better crop prospects. Cotton and feed crop fields were also much cleaner and better prepared.

Oats on the station has been pretty fully headed for about a week. The plants had not fired and a pretty good yield is indicated. Most of the wheat plots were badly fired and heads are emerging from the boot, while the plants average from 8 to 14 inches in height.

Tennmarq. wheat is pretty well headed while the Turkey Red wheat in adjoining plots is just beginning to head. The Tennmarq averages from 15 to 22 inches in height and the Turkey Red averages from 10 to 15 inches.

Winter barley fired to some extent during the drought, but remained in a fairly vigorous condition. Orel suffered from drought more than any other variety. This crop as a whole now has a chance to make fairly good yields.

The first crop of alfalfa throughout the county has been cut and the yield and quality was very inferior.

WOODWARD:

Cool, damp, cloudy weather has prevailed during almost the entire week, but with very little moisture until last night when .23 inch precipitation occurred. The wind velocity was strong for the greater part of the week.

Wheat over the country is looking good, and prospects for a good fruit crop are still bright.

Station work for the week consisted of planting peanuts, artichokes, cotton, and tree seed, and cultivating corn and trees. The rye check plots and alfalfa fields were mowed for hay.

Maximum temperature 85; minimum 42; precipitation .27 inch.
Wind velocity 9.6 miles per hour; evaporation 1.034 inches.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 18 1929

REPORT FOR WEEK ENDING MAY 18, 1929.

PENDLETON:

The winter and spring wheats are making a fine growth. Crop prospects in the region this station is designed to serve are excellent, and very good wheat yields are expected. In the other counties of the Columbia Basin, including the west end of this county (Umatilla), the crop prospects are the poorest they have been for a long period of years. The lack of early fall rains resulted in failure to emerge until this spring. There have been no rains of any value since last February.

The winter barleys started heading May 13. Some of the early winter wheat hybrids will be heading in a few days.

We have had frost two nights the past week. The frost has not damaged the beans on an adjoining farm.

Considerable time has been spent the past week hunting for a suitable team of horses for station work. Good young horses are rather hard to find in this region. The farmers have not been raising many colts the last few years.

Maximum temperature 80; minimum 30; precipitation none.

HAVRE:

Temperatures during the past week were again low for this season of the year. The minimum on three nights was below freezing. Monday was stormy and snow fell at the station. In the mountains both to the south and west the snow did not melt as it fell.

The small grains on the rotations and in the variety tests have emerged with good stands. Some of the stubbled-in plots are becoming weedy but the grain is making more rapid growth than the weeds. Corn on the rotations is being planted to-day following a cultivation on the 17th to kill weed growth. Flax will probably be seeded next week owing to the fact that the showery condition this spring has started weed growth in good shape.

HAVRE, continued:

The baby beeves which have been on test since last October were sold during the week. The lot that was on frosted wheat showed the best finish that we have ever had on baby beef at this station. The average of the two lots, one on frosted wheat and one on barley, was just about 800 pounds at the end of the test. The breeding herd have been put out on grass which has made a pretty fair growth during the last week.

Lambing in this section is fairly well completed and reports are that the lambing percentage is probably as high as it has ever been. There was a little difficulty in early lambing due to the fact that grass was short, resulting in a shortage of milk.

Mr. Louis Vinke, of the Montana Experiment Station, was a visitor at the station from the 14th to 17th.

Maximum temperature 76; minimum 28; precipitation .29 inch.

JUDITH BASIN:

Exceptionally cool weather prevailed during the fore part of the week with high winds occurring during two days. These winds caused soil blowing on fields that had been improperly handled, causing slight damage to crops that were at a tender stage. A driving hail of short duration whipped some leaves, but crops appear to have quickly revived from this damage. The last two days of the week were warm and favorable for crop growth. A marked development was noticed in all field crops.

The seeding of spring wheat is practically completed in the early sections of the Basin. Other spring grains are being seeded as rapidly as possible. It is expected that warmer weather, together with precipitation, would improve the conditions of all crops, particularly early seeded winter wheat. Continuous cropping methods on the rotations were seeded during the fore part of the week. Seeding on increase fields, which had been delayed in order to control weeds was also completed.

JUDITH BASIN, continued:

Early seeded spring grains have emerged on the station with uniform stands. Forage crops are making a marked improvement in growth. Early species of trees are leafing out. Pasture blocks are seeded with the exception of corn. Ground has been prepared for the corn crop on the rotations and forage experiments.

Maximum temperature 75; minimum 23; precipitation .10 inch.

HUNTLEY:

Warmer weather during the past week has been reflected in marked increase in crop growth. Winter wheat and rye have developed much more rapidly than have spring sown grains. The latter have been somewhat handicapped by dry seed beds and irregular stands. Alfalfa and perennial grasses made sufficient growth to warrant stocking the plots to be pastured.

Field work has consisted of lining out and cultivating roads, weighing up and distributing the pasture hogs, repairing fences and doing some miscellaneous planting.

Heavy rains, and in some instances snows, have been received in adjacent territory, but only light showers have fallen at the station this week.

Maximum temperature 81; minimum 28; precipitation .04 inch.

SHERIDAN:

The entire week was mostly fair with some quite warm weather. Field work was possible throughout the week, making the longest period this spring that work has been possible in the field. In some near-by sections it was the first time this spring that any field work has been possible.

SHERIDAN, continued:

Land for corn and flax in the rotations was plowed, and preparation of the plots for corn was completed. The plowing was attempted early in the week, but even the driest part of the rotation field was found to be too wet to plow at that time. The plowing was delayed a couple of days and then completed, although much of the ground was still too wet to work up in good condition. More cultivation than usual was required after plowing to get any of the plots in fit condition to seed, the stubble land being apparently in good condition on the surface, but remaining spongy underneath. Land on other parts of the station is plowing in good condition. Plowing for corn varieties is being completed to-day.

Perennial forage crops, winter wheat, and early seedings of spring grain, including the regular seedings in the rotations, made a good growth during the week. The alleys between the winter wheat plots, where there was considerable volunteer grain, were lined. The regular seedings of dates of spring grain were made also.

Soil samples taken during the week showed most plots to be wet to depth of 6 feet, although in a few places dry soil was encountered in the third and fourth feet sections.

Maximum temperature 80; minimum 30; precipitation .01 inch.

DICKINSON:

With the exception of a warm wave on the 13th, the month of May has been cool to date with frost on all but four nights. About two inches of snow fell on the night of the 14th.

The first blossoms opened on plums in the orchard on the 16th, nearly ten days later than in 1928. All vegetation continues to be backward due to the cold. Most of the garden varieties planted April 19 have emerged with good stands.

Land was prepared the first of the week, and corn plots were planted on the rotations May 16. The field for the corn varieties and silage corn was plowed with the tractor but was not planted.

DICKINSON, continued:

Potato varieties were planted May 13 and 14.

Most of the rotation plots were trimmed and the stakes put in place.

Maximum temperature 83; minimum 25; precipitation .26 inch.

MANDAN:

Agronomy

The past week was cold and windy. Rain, and about an inch of snow, fell on one night. Freezing temperatures occurred on two nights.

The damage from the low temperatures of last week appear to be slight on the station. The tops of the small grain were frozen back, but the recovery so far has been good.

The week has been spent in preparing all land for corn planting. Corn in the rotations was planted on the 17th. The average date of planting is the 18th. A three-acre field is being listed to-day. The soil remains cold.

The wheat in the delayed seeding plots was seeded on the 17th.

Maximum temperature 81; minimum 27; precipitation .38 inch.

Cooperative Grazing Experiment.

The cattle were weighed and started on the various pastures during the week. The cattle were thinner than they have been for the past few years. The average weight per head was about 700 pounds, which is below the average.

Native vegetation is slow in growing, and the pastures are below normal for this time of year, but are somewhat better than last year at the same time.

MANDAN, continued:

Cooperative Grazing Experiment, continued:

Brome-grass is in good condition for grazing. There is a very poor stand of 2-year-old sweet clover for grazing this year. Brome-grass has come back into the sweet clover pasture, so that the feed there this year will be mostly brome-grass.

Arboriculture

Four furrows have been plowed around each caragana hedge, between the brome-grass fields, and also the south Jack pine windbreak.

The dead-wood has been removed from the twenty-two shelterbelt combinations. The dense shade formed by the crowns has resulted in the killing of all lower branches, which, when removed, give the trees the appearance of being moderately pruned.

Severe winter killing has occurred in the tops of all species of willows and poplars, and to a less extent in most other species.

Seed of Boxelder, Green ash and Russian olive, planted this spring, has emerged during the week. Stands are excellent.

Horticulture

Top-working in the Hibernal and Virginia crab blocks has been completed. The success of such top-working with cions of semi-hardy varieties, is still somewhat in doubt. Blight has been a very troublesome factor.

Apple and crabapple trees have been gone over, and blighted portions removed.

Plum trees, June-berries, and number of small fruits, are now in bloom. Outside emasculating, bagging, and crossing is now in progress.

Potatoes were planted on May 17th and 18th. The tuber unit method of planting is being used in the seed plot in order to more readily detect and eliminate disease.

BELLE FOURCHE:

The week as a whole was comparatively warm, and the highest temperature of the season to date was recorded May 13th. Unusually cool weather occurred during a couple of days and the temperature dropped to 2 degrees below freezing on May 16th, but no damage was done to crops or tender plants. Strong winds have prevailed throughout the greater part of the week and an exceptionally severe wind storm occurred the evening of May 14th, but a shower at an opportune moment stopped soil blowing.

The warmer weather has been favorable to plant growth, and all crops have made noticeable advancement. Winter rye is about 14 inches high, and winter wheat is jointing. Spring seeded alfalfa is coming up, and field peas, flax, sweet clover, and bromegrass are up with good stands.

Corn was planted the first of the week. Plowing of fallow was completed, and all corn and fallow plots were harrowed. All plots were trimmed, and roads and alleys were cultivated.

Maximum temperature 84; minimum 30; precipitation .18 inch.

ARDMORE:

The weather during the week was hot and dry with the exception of the 15th when unseasonably cool weather prevailed. A hard freeze on the morning of the 16th did some damage to the more tender field crops and to fruit and forest trees. There were two periods of precipitation reading a trace in each instance.

Field work consisted of corn planting, preparation of ground for sorgo and tame grass pastures, hauling manure, construction of fences, and cultivation of shelter-belts, roads and plot alleys.

Corn planting in all but the variety test plots was completed on the 16th. In some fields the seed bed was too dry for the germination of seed.

ARDMORE, continued:

Mr. David Kopland, Agent in Dairying, left on the 17th to take up his new duties at Huntley, Montana, and Mr. Ray Smith formerly of Ames, Iowa, has been installed at Ardmore.

Maximum temperature 87; minimum 26; precipitation Trace.

CENTRAL GREAT PLAINS FIELD STATION:

The last of the snowdrifts resulting from the storm of April 24 succumbed to the sun's rays May 13.

Planting root crops on Section 9 was finished May 13. Planting of a 20-acre tract of oats on Section 9 was finished May 14.

Seedlings in tree nursery on Section 9 were lined out, May 14 to 17.

Excavating for storage cellar was resumed on May 15 with one 4-horse fresno team and one 2-horse plow team. This excavation was finished May 18. Slopes were squared up and made ready for footings and forms.

A rotary drag scraper was received May 15 and excavating for the greenhouse with this implement attached to the tractor was begun May 17.

On May 17 footings for the cowbarn and wagon scales were poured, and forms for cowbarn foundations erected. The foundations for the cowbarn were run May 18, so that construction of this building can start next Monday, May 20.

Two street lamps on metal posts were placed in front of the Administration Building and current turned on.

CENTRAL GREAT PLAINS FIELD STATION, continued:

The bunkhouse was ready for occupancy May 13 and six workmen are now occupying quarters.

Dr. A. P. Sturtevant, Associate Apiculturist in Charge of Intermountain Bee Culture, stationed at Laramie, Wyoming, visited the station May 18 in company with Mr. Don Wageman, of Cheyenne, Wyoming.

Mr. S. R. DeBoer, Collaborator, visited the station May 14 and went over the roads and grades, returning to Denver the following day.

May	12	Clear	lowest	30;	highest	60
"	13	Clear	"	38;	"	59
"	14	Clear	"	47;	"	67
"	15	Clear	"	32;	"	58
"	16	Cloudy -Showers	"	46;	"	69
"	17	Clear	"	38;	"	65
"	18	Cloudy -Showers	"	34;	"	56

ARCHER:

During the week the weather, for the most part, has been clear and warm with only two days when the temperature registered below freezing. To-day has been threatening with slight precipitation. The Chinese apricots are in full bloom and the plums are showing signs of bloom. The prairie grass has grown rapidly. The small cereals on the Dry-Land plots have emerged.

The work has consisted of seeding flax and the remainder of the corn on the Dry-Land plots. Most of the cereal varietal plots have been seeded. The potatoes have been planted. Seeding in the dairy field is practically complete. There remains one more day of tree planting.

Director W. L. Quayle and Mr. Wyant, of the University of Wyoming, were station visitors May 15.

Maximum temperature 72; minimum 28; precipitation .07 inch.

AKRON:

A very busy week was spent making up for the delayed field work occasioned by the recent wet weather. The variety corn land was listed preparatory to seeding later. The sheep rotation corn fields and the rotation and rotation extension corn plots were made ready and seeded this week-end. Rotation alleyways and practically all experimental roadways were cultivated. The orchards and shrubbery plantings were also given complete and thorough cultivation.

Notes were taken on last year's seedings of alfalfa and sweet clover and the ground plowed was ready for seeding barley. Generally speaking, the alfalfa stands secured were perfect, while the sweet clover stands ranged from nothing up to perhaps half stands.

The orchard is a perfect mass of bloom this week. Not for years have the apple trees bloomed so profusely. Wild Russian apricots reported in bloom a few weeks past evidently saved a few blossoms for they are again showing considerable bloom. Caragana is in bloom. Birds are now here in great numbers and considerable variety.

Spring sown small grains are making good progress, but winter wheat remains backward. Weeds are starting thickly on all thin winter wheat plots which include all the rotation plots. These plots were spike tooth harrowed Saturday May 18, in an attempt to kill some of the emerging weeds.

Maximum temperature 85; minimum 35; precipitation 0.

NORTH PLATTE:

The weather features of the week have been a wide temperature range and a high wind movement. On the 13th a temperature of 90 degrees was recorded, which is the highest record so far made this season. On the night of the 14th the minimum temperature was 31 degrees. This made a temperature range of 59 degrees in 48 hours. High, drying winds have persisted for five days. The surface soil is becoming quite dry.

NORTH PLATTE, continued:

No precipitation was recorded during the week. Corn was planted on the 82 plots in the D. L. A. rotations on May 13. Corn planting has been in progress on the station general fields all week. With favorable weather conditions, planting will be finished by about May 22.

Stock cattle will be placed on the station pastures during the coming week.

COLBY:

Temperatures have remained rather low during the past week. The temperature reached 80 on only one day during the week. No precipitation was recorded and wind velocity was high on three days.

Field work progressed very well during the week. All corn plots on the dry land project were planted as were the corn variety plots. General field corn is also planted at this time. Fallows on the project are being plowed to-day.

In general, crop conditions are good in this section of the country. Most wheat is looking good but remains small. Barley and other spring small grains seem to be in excellent condition.

Maximum temperature 89; minimum 31; precipitation 0.

HAYS:

The soil was so thoroughly soaked for the first few inches by rains during the previous week that no field work could be done until the middle of the week just past. Since then all plowed corn plots have been cultivated and staked ready for planting, and staking of most of kafir plots is finished. Some repair work on drainage ditches made necessary by recent heavy rains has been done.

HAYS, continued:

Alleys have been cultivated. Some roads were cultivated and soil samples were taken on a number of row-crop plots.

Winter rye was turned under for green manure May 17. It had reached a height of about three feet, and was about 90 per cent in head. The growth was moderately thick and very even. A good job of plowing was done so that practically all the growth was buried.

Winter wheat continues to make a good growth on fallow. It is now about 24 inches high, and carries a heavy foliage. The heads are in the boot, but not far advanced. It will be several days before any will emerge. Wheat on late disking, late one-wayed ground, and on kafir stalk ground is very short and thin, with slender stalks, poor color and the lower blades turning as if in need of water. This, however, is not the case. On these plots, as well as on corn and kafir stubble plots (where the wheat is little better), heads are now emerging. Only a few heads are completely out, but a good many are showing. While the growth of wheat on fallow is very heavy, as stated, no lodging has yet taken place even under pressure of heavy rain and wind such as usually lodges heavy wheat.

Maximum temperature 81; minimum 32 and a light frost which apparently was harmless; precipitation .13 inch.

TUCUMCARI:

An all day rain Sunday, May 12, totalling 2.05 inches improved range, wheat, and row crop prospects greatly. Heavy fall precipitation had well supplied the soil with moisture from the second to fourth foot, but the surface soil was very dry previous to this rain. During the week considerable planting has been done in this locality.

Early in the week the orchard was again sprayed, weeds were hoed, and clay was hauled to roadways. Land was prepared and planting performed on the first dates of grain and forage sorghums, the variety plots of corn and peanuts, and the single row test of cotton. Preparation for planting a number of rotation plots was well under way, but Thursday night, May 15, a shower of .20 inch sufficed to keep teams from the field the past two days.

TUCUMCARI, continued:

Much of the wheat on the plains which was apparently nearly hopeless has responded rapidly and prospects for a fair crop are now bright. Most of the week the skies have been cloudy, with very low evaporation, and low temperatures.

Maximum temperature 84; minimum 42; precipitation 2.25 inches. Wind velocity 6.2 miles per hour; evaporation 1.112 inches.

DALHART:

The report for last week was hardly in the mails before rain had started. A total of 1.16 inches was received from Saturday night to Monday morning. This all fell as a gentle shower or showers so that excellent penetration was received. The week has been cool with a minimum of wind movement.

Winter rye is fully headed and is blooming. The rye for green manure was turned under during the week. Wheat is not heading but head emergence is expected anytime now. Winter barley is starting head emergence. Weeds have put forth more growth during the week than they have all spring.

Field work during the week consisted of finishing plowing for corn and sorghums with the exception of the plots plowed just ahead of planting. The plowing for sorghums had been completed, with the exception of four plots, just ahead of the rain. These were plowed and the late plowed corn plots were also plowed. All spring plowed plots were harrowed during the week. A day and a half the last of the week was devoted to disking trees and disking fall plowed and fallow plots.

The first date of planting sorghums for the variety test was made on the 15th. All corn plots were planted on the 17th. The flowering willows are just now putting forth their leaves. The first strawberries were picked this week from the strawberry bed.

Maximum temperature 83; minimum 41; precipitation 1.17 inches.

BIG SPRING:

Soil moisture conditions have been greatly improved on the Station and over the county by general rains during the past week. Four different rains totaling 1.42 inches have occurred this week. This is the first rain that many of the farmers of the county have received since March. As a result of these rains practically all of the farmers of the county will start planting or replanting cotton just as soon as the fields are dry enough to get in to.

All rotation plots were harrowed and staked off during the week so that planting can be started at an early date. The May 15 date of planting of cotton and sorghums was made on the fourteenth; the cooperative field was disked in preparation for planting.

During the rainy days all of the grain sorghum seed and the cotton seed was treated with copper carb. New Century and Early Richmond cherries are being picked to-day.

Maximum temperature 92; minimum 52; precipitation 1.42 inches.

LAWTON:

Precipitation to the amount of .48 inches on the 12th and 1.50 inches on the 17th, added to the 7.39 inches received on the 11th, made a total of 9.37 inches within a period of seven days.

Temperatures have been quite cool through out the week with the exception of one day when a maximum of 86 was recorded.

No field work of any sort was possible the past week and the delay of row crop planting continues.

The April 15 planting of cotton has but a very thin stand left, and the May 1 planting looks very much like a complete failure.

Grain sorghums planted on the above dates are also in very bad shape. The planter furrows are pretty well filled in with washed soil and the second date may not emerge at all.

LAWTON, continued:

Sweet clover that is in the second year's growth is making a very rapid development.

Barley and oats should respond to the present moisture conditions with very good yields. Some of the wheat will also make fair development, but the crop as a whole will be very spotted.

Maximum temperatures 86; minimum 51.

WOODWARD:

Two days of the week were spent in spraying orchard and ornamental plants. Rye on rotations was cut as well as alfalfa in small patches about the Station. Alfalfa and rye were mixed together when put in mow.

Plowing was done for earlier plantings of grain sorghums. Orchard, vineyard, and roadways were disked.

While field work has been done at a disadvantage because of wet weather, low temperatures have kept weeds from growing rapidly. Continued rains are bringing wheat along nicely.

The following is precipitation for May to date.

May	1	.65
"	4	T
"	5	.03
"	6	T
"	7	T
"	8	.01
"	9	T
"	10	.23
"	11	.30
"	12	.11
"	13	.06
"	17	1.45

WOODWARD, continued:

Most of wheat is just starting to head. That on the heavier soil is very good. Wheat on sandier land, however, is as poor as in a very dry year. In seasons of heavy or continuous rainfall wheat on sandy land is often poor, pointing probably to leaching.

Maximum temperature 83; minimum 41; precipitation 1.92 inches. Wind velocity 6.3 miles per hour; evaporation .957 inch.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

MAY 25 1929

REPORT FOR THE WEEK ENDING MAY 25, 1929.

PENDLETON:

The plans for the Superintendent's residence have finally been decided upon. The construction will start about June 25. Funds are the chief source of the delay, the state is erecting the station buildings. The residence will be built out of this years sales fund. The crop on this quarter section should exceed 6000 bushels.

This week a water system was installed, using a 1000 gallon pressure tank and fifty pounds pressure. Until electric power is secured a three horse power gasoline engine will operate the system.

The winter wheat is heading in this region. A good rain is needed.

Maximum temperature 86; minimum 37; precipitation none.

HAVRE:

The past week was the first this spring that the minimum temperature has not been below freezing. With maximum temperatures ranging around 80, vegetative growth has been very rapid. All spring grains are up with excellent stands. Corn land was given a cultivation and the corn was planted on the rotations, variety tests, and commercial fields.

The flax plots are being given a cultivation preparatory to seeding. Alfalfa and grasses are making a very satisfactory growth.

A complete round of soil samples was taken during the week including samples for nitrate determinations which are being run by the Montana Experiment Station.

On the evening of the 24th we had a very heavy wind storm followed by rain amounting to .33 of an inch. This storm lasted only about one-half an hour but for high wind movement was one of the worst we have had in several years. The wind and beating rain caused a little damage to crops that were just emerging.

HAVRE, continued:

The plum and apple trees are very heavily loaded with blooms. Practically all the blooms came out within 3 days time. Weather conditions seem favorable for a good set of fruit. Trees are leafing out very rapidly and lilacs and tulips are now blooming.

Maximum temperature 83; minimum 39; precipitation .33 inch.

JUDITH BASIN:

The fore part of the week was cool and backward but turned warmer abruptly, making all crop growth develop quickly. A strong wind one afternoon moved some soil on drier fields and whipped the early sown spring grains.

Winds and thrifty growing plants have sapped the readily available soil moisture rapidly. The May rainfall is very low to date. All field crops would be benefitted by more moisture.

Land was prepared and corn planted on the rotation and pasture lots at the station. Various forage crops, a few early bean varieties and potatoes were planted. The method of tillage tests were given first treatment for summer fallow. Plowing for fallow was started on the rotations. Forage fields were also cultivated.

On Friday afternoon one hundred farmers from Fergus and Judith Basin counties gathered at the station to study winter wheat conditions. All field methods and dates of seeding were observed. Early seeding of winter wheat and poor methods were discredited. Experiments seeded prior to September first are not thrifty. The damage from foot rot disease is noticeable on July and early August seedings.

As the large percentage of winter wheat fields in the Judith Basin were seeded after August 31 the damage will be low compared with the 1928 crop.

JUDITH BASIN, continued:

Farmers present were, however, keenly interested in this problem and related subjects.

County Agents Noble and Mountjoy accompanied the farmers from their respective counties. Mr. H. E. Morris, of the Montana Experiment Station, took an active part in the discussions.

Maximum temperature 83; minimum 28; precipitation .18 inch.

HUNTLEY:

Much warmer weather has prevailed during the past week than any we have had previously this spring. Where moisture was available crop growth was rapid, but where the soil water supply was getting low plants were noticably wilted during the warmest part of the day.

Potatoes, beans, soybeans, Sudan grass and sorgo were planted during the week. The seed beds for these crops had dried out to the extent that it is doubtful if good stands will be secured until we have rain.

Hogs on the dry-land pastures were weighed, on May 23, for the first time. All lots showed moderate gains. The lowest returns were made on the drilled brome-grass pasture, the forage of this plot being wilted and less abundant than that of the other pastures.

Maximum temperature 89; minimum 31; precipitation .02 inch.

SHERIDAN:

The entire week has been fair until to-day, with the warmest weather of the season. Temperatures above 80 degrees F. were recorded for four days in succession.

SHERIDAN, continued:

Corn and potatoes were planted the first of the week. Land has been prepared for all late forage crops, with the exception of a final cultivation before seeding. Much of the ground still plows in poor condition, being baked on the surface and still wet and puddled underneath. All vegetation made a fast growth during the week. All seedings of grain made previous to this week have emerged with a good stand.

Maximum temperature 89; minimum 32; precipitation .02 inch.

MANDAN:

Agronomy

The past week has been the warmest of the season to date, with only one night below 32 degrees. There was one 24-hour period with a high wind which averaged 13 miles per hour for the period.

Corn planting was completed during the week, which consisted of seed blocks, silage test, variety test, and breeding block.

The second date of seeding alfalfa and sweet clover in the forage crop rotations, was completed.

Spring planted small grain is rather backward for this time of year, caused by the cool weather and frequent frosts.

Soil is rather dry on top at present; a good rain will be needed soon.

Maximum temperature 80; minimum 28; precipitation .09 inch.

Cooperative Grazing Experiment

Grass in the pastures remains very backward. The cattle in the 30-acre pasture have a hard time to find enough to eat. The brome-grass pasture is in very good condition for grazing.

MANDAN, continued:

Cooperative Grazing Experiment, continued.

The cattle in general show a good deal of improvement over their condition 10 days ago.

Arboriculture

All dead wood has been removed from the Specie Testing blocks, and the Pruning, Spacing and Cultivation tests.

Cultivation of this year's plantings of Ash, Boxelder and Russian olive, has been done. All roads have been cultivated with the duckfoot cultivator.

Eighteen conifer seed beds, consisting of 4 beds each of Black Hills and Colorado Blue spruce, 3 beds each of Scotch and Western Yellow pine, 2 beds each of Jack pine and Red Cedar, have been planted.

Hoeing has commenced of caragana hedges and the south Jack Pine windbreak.

Horticulture

Field crossing of plums, apples and crabs, gooseberries, sandcherries, currants, and Chinese cherries, has been in progress throughout the week.

Buds are growing rapidly in the nursery and sprouts have been removed.

It now appears that winter injury will be much more severe than was thought to be the case a few weeks ago. Japanese hybrid plums were especially hard hit. Gooseberries were also severely damaged.

The sweet corn selections in the sweet corn breeding project, were planted on the 20th and 21st. A paper mulch experiment on flowers and vegetables, was laid out and planted during the week. Fourteen vegetables and two species of flowers are included.

MANDAN, continued:

Horticulture, continued.

The setting out of tomato, pepper, eggplant, and cabbage plants, and the final planting of vegetables in the acre garden, will be completed to-day, May 25. The earlier plantings are now up with a very good stand. The weather has been a bit unfavorable, with high winds, dryness and frosty nights, but the plants seem to have escaped any noticeable injury.

The trees and shrubbery on the grounds are now leafing out, and a few species such as Ribes aureum and Spirea arguta, are in bloom. Much winter injury is now apparent. Spirea Van Houtte and Philadelphus species, are dead to the ground in several groups, as are also all laurel leaf willows. The various groups about the grounds are at present receiving their yearly renovations.

Visitors to the station included the following; Mr. W. C. Allen, Publisher of the Dakota Farmer; the Secretaries of the Chambers of Commerce at Huron, Aberdeen and Mitchell, all in South Dakota; a class of 20 scholars from the new Salem, North Dakota, High School in charge of their Smith-Hughes instructor; a class of 15 scholars from the McKenzie, North Dakota, High School, in charge of Professor H. E. Hermanson, High School Principal; Mr. Ross Davis, Assistant County Agent Leader, Brookings, South Dakota; Mr. Leonard Noble, County Agent, Corson county, South Dakota; Mr. R. L. Shotwell, Cereal and Forage Insects, U. S. Department of Agriculture, Billings, Montana; Mr. A. L. Norling, County Agent, McLean county, North Dakota; and fourteen farm managers from various parts of Russia, with Mr. J. Beresney, Kiev, Russia, acting as leader and interpreter.

BELLE FOURCHE:

The first two days of the week were unusually cool. A killing frost occurred the morning of May 20, but no damage was done to field crops. The remainder of the week has been quite warm, and the highest temperature of the season to date was recorded May 24 when a hot wind prevailed throughout most of the day.

BELLE FOURCHE, continued:

Practically no precipitation was received and rain is badly needed for hay and pasture crops. Soil samples, taken the first of the week, show an abundance of moisture to be present in the first 2 feet of soil on spring grain plots.

The warm wind, on May 24, caused alfalfa and sweet clover to wilt badly, and all hay and pasture crops are beginning to burn. Winter rye is in the boot but is commencing to suffer from lack of moisture. Winter wheat and all small spring grains have made a good growth. Corn is coming up, and potatoes apparently will be up within a few days.

Visitors during the week were Mr. S. S. Buckley, of the Animal Husbandry Division, and Mr. A. C. Cooley, of the Office of Demonstration on Reclamation Projects.

Maximum temperature 93; minimum 29; precipitation .01 inch.

ARDMORE:

The weather during the week was hot and dry. A hot wind, on May 24, caused considerable injury to crops where the moisture supply was deficient. All grain following grain is commencing to fire, and the growth of grain on corn ground has been checked. Grain on fallow is still making a normal growth. Alfalfa, except in favored locations, has ceased growth. Prairie grasses are burning up in spots. Species like gramma grass and buffalo grass have not made enough growth to furnish any appreciable amount of grazing.

There was no rain during the week. The precipitation for the year to date is about half normal. The preceding fall and winter were both very dry, and the soil was without reserve moisture at the beginning of the growing season. Grain crops are suffering at an unprecedentedly early stage of growth. An unusual amount of rain between now and harvest will be required to produce even a fair yield.

ARDMORE, continued:

The soil on all plots spring plowed for corn is so dry that the corn will not germinate until there is a rain. On fall plowing some of the corn may germinate.

A killing freeze occurred on May 20. All tender vegetation was badly damaged and potatoes and small grain were injured.

The steer wintering experiment was completed on May 22. the rations of the two lots of steers were placed at what was considered a maintenance ration. The gain of the lots during the winter period was as follows:

Lot	Feed Per Steer Daily	Winter Gain
1	8 lbs. alfalfa, 4 lbs. oat straw	-2.6
2	16 lbs. corn silage, 4 lbs. oat straw	8.0

The steers in both lots are in good condition. They were turned on pasture on May 22. The grass on all of the pastures is very short.

Professor E. C. Chilcott visited the station on May 23. Dr. S. S. Buckley visited the station and vaccinated the spring pigs on May 21.

Maximum temperature 88; minimum 29; precipitation none.

CENTRAL GREAT PLAINS FIELD STATION:

Cabbage and cauliflower plants were set out in the vegetable garden May 21. The root crops planted May 13 are up and a good stand has resulted from the sowing of oats May 14. Certified seed potatoes were planted May 25. A quantity of seeds of boxelder, ash, Russian olive and caragana was sown in the tree nursery May 21 and 22.

Reinforcing steel for the storage cellar arrived May 20; excavation for this building was finished and cement footings were run on May 22 and 23. The ventilator tile was placed and the reinforcing steel tied and set up May 24. The concrete forms were completed May 24 and put in place with center braces May 25.

CENTRAL GREAT PLAINS FIELD STATION, continued:

Framing the cowbarn extension of the stable was begun on May 20, the roof was shingled on the 22nd, door and window frames were placed on the 23rd. The manger and stall equipment for this unit arrived May 25. Part of one side of the cowbarn is yet to be shingled and the concrete floors are to be run.

Mr. George Carlson of Mr. S. R. DeBoer's office (Denver) was a visitor May 21. Mr. DuBois, Collaborator and architect also called on Tuesday and went over the station building plans with Professor Chilcott.

Excavating for the wagon scale was finished and cement foundation were run on May 23.

Professor Chilcott, who left for Ardmore and Brookings, South Dakota, on May 22, is expected back to-night, May 25.

May	19	Clear	Lowest	35	highest 60
"	20	Clear	"	46	" 67
"	21	Cloudy	"	46	" 66
"	22	Clear	"	40	" 70
"	23	Clear	"	44	" 69
"	24	Clear	"	47	" 73
"	25	Cloudy; thunder showers			

ARCHER:

The weather has been warm and dry permitting field work. Work at the station has consisted of seeding and planting. The varieties of oats, barley, corn and beans have been seeded. A portion of the dairy field has been seeded to millet. The varieties of potatoes and two shipments of trees have been planted. The seepage line of the remodeled house has been laid and covered.

During the week the Northwest poplar has leafed out and the gooseberries, strawberries and currants are in bloom. Spirea Arguta and a large number of early prairie flowers are in bloom. The prairie grasses have made a rapid growth.

Maximum temperature 76; minimum 32; precipitation .01 inch.

AKRON:

Another favorable week for field work. The remainder of the station corn was planted. The Winter Wheat Variety alleys were cultivated. The Cereal Variety fallow land was plowed. A four-horse team was kept busy practically the whole of the week listing-in corn and double disking areas to be clean cultivated during the summer.

Persian Lilacs are in full heavy bloom by this week-end. Blossoms in the orchard are drying-up and petals are falling. The orchard bloom reached it peak last Sunday when the project was outstandingly beautiful. Forest trees are breaking into full leaf.

All seeded crops are making satisfactory progress.

Ewes and lambs were placed on the native sod pasture to-day for the beginning of the summer grazing period. The rye lot has been on the rye since the 11th.

Maximum temperature 81; minimum 38; precipitation 0.

NORTH PLATTE:

The week has been without rain. Temperatures were somewhat higher than for any previous week of the month.

Corn planting was finished on the station and land is being prepared for sorghums. Corn on the D. L. A. plots, planted on May 13, is just beginning to emerge. Winter wheat is jointing. First heads of rye are appearing.

Seven bushels of Chinese Elm seed were recently collected from the station trees by one of the nursery companies of the state.

COLBY:

Somewhat higher daily temperatures have prevailed during the past week, but they have been low enough to hold back the growth of corn.

COLBY, continued:

Corn listed nearly two weeks ago is just beginning to emerge. Winter wheat and the spring small grains are making satisfactory growth. None of the small grains are yet in the boot. Corn varieties and surface planted corn on the project have emerged to what appears to be a good stand.

Field work this week consisted of disking fields that are to be planted to the sorghums, plowing fallows, and trimming plot ends.

Mr. Carl Bower, of the Cereal Office, was a station visitor Tuesday. He came from Manhattan to direct the planting of the corn nursery that is conducted in cooperation with that office.

Maximum temperature 78; minimum 48; precipitation .32 inch.

GARDEN CITY:

Report for two weeks ending May 25, 1929.

Weather conditions the past two weeks have been excellent for project work. All fallow plots fall listed, early spring listed, fall and spring plowed plots were spring toothed to prevent weed growth and pack seed beds.

Winter wheat on all plots have made exceptional heavy growth. Wheat on methods of fallow at this time is approximately thirty inches high. Soil moisture is adequate to handle the growth at present though the moisture stored is not sufficient to insure a heavy yield.

The first date of planting sorghums was put in May 15. Eight varieties were included in the test, Dwarf Yellow Milo, Dawn kafir, Reed kafir, Sunrise kafir, Feterita, Standard Sumac, Early Sumac and Sudan. Four date of planting are included in the test, May 15, May 30, June 15 and June 30.

GARDEN CITY: continued:

General planting of sorghums will be made on the project around the first of June.

Maximum temperature 82; minimum 36; precipitation .95 inch.

TUCUMCARI:

Planting performed the past week included all north field rotation plots; M. C. corn, kafir, and sorgo; cotton variety-date plots, and single row cotton test. The variety grain sorghum plots planted the 15th emerged to good stand the 23rd, while the corn variety plots likewise were rather slow in emerging, as the result of cool weather.

Preparation of increase land for planting is progressing rapidly. Moisture conditions are excellent and seedlings would emerge much quicker if the weather were warmer. May to date has averaged about five degrees below the long-time mean and the past week has been generally cool and cloudy.

A good crop of cherries and apples is probable, while grapes are blooming. Ranges are good, indications of at least an average wheat crop are evident; while farmers have not had such satisfactory soil moisture conditions in several years as now exist.

Maximum temperature 79; minimum 49; precipitation .10 inch. Evaporation 1.365 inches.

DALHART:

The weather remained favorable for field work during the week. Planting accomplished during the week consisted of the third date of planting cotton with three varieties on the 20th and the variety planting with 20 varieties on the same date. Additional planting for the week was a soybean nursery of 60 varieties, and the rotation plots of peanuts, Mexican beans and soybeans.

DALHART, continued:

The tillage work that was necessary for planting of kafir and milo was completed this week. None of these plots were planted however. It was felt that the ground was a little cool for the sorghums. The first date-variety test of sorghums are just about fully emerged now. It is rather doubtful now if sufficient stand will be secured for all of the sorghums, some are still emerging. The varieties varied from 8 to 10 days in showing full emergence.

Tree varieties and plantings were hoed and worked during the week. Rye still looks as if it would make an excellent crop. Wheat started heading on the 20th and is not emerging very fast. The plots appear spotted due to uneven heading at the present time. Corn planted on the 17th is not more than just starting emergence.

The precipitation for the year to date is approximately two inches less than normal. The fall precipitation was above normal so that winter wheat in the surrounding country still looks fine. This is also partly due to the cool weather this month. The sweet clover plots are showing some lack of moisture in areas or spots. They will probably be harvested this coming week.

Visitors during the week included Mr. E. F. Chilcott, of the Woodward Field Station.

Maximum temperature 78; minimum 46; precipitation .06 inch. Wind velocity 6.8 miles per hour; evaporation 1.394 inches.

BIG SPRING:

Although planting started off in good shape the first of the week, it has been more or less interrupted by frequent rains. Rains varying from .09 to .50 inch have occurred on five days during the week. During this time planting has been done by half day spurts, as the soil was too wet during the remainder of the time. While the station only recorded .50 inch last night, May 24, sections 10 miles southwest of here report 6 and 7 inches with lots of soil washing damage being done.

BIG SPRING, continued:

Practically every farmer in the county started to plant or replant last Monday. Those that had planted earlier, either had had their crops covered up or blown out.

Station work has consisted of planting and hoeing weeds. Two planters were run when soil conditions would permit. During this time all cotton plots in the rotations, varieties, and spacing were planted. Kafir, corn, broomcorn, cowpeas, and sumac were also planted.

Maximum temperature 81;minimum 49; precipitation 1.01 inches.

WOODWARD:

Work of week has consisted largely of plowing on rotations and fields. One date of cotton and one date of variety sorghums was planted. Much miscellaneous hoeing and cultivating has been done.

Weather has continued unreasonably cool and farmers would gladly defer planting of grain sorghums. However, due to big wheat harvest in prospect farmers are planting sorghums as rapidly as possible.

Maximum temperature 79; minimum 47; precipitation .10 inch. Wind velocity 5.2 miles per hour; evaporation 1.130 inches.